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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/822,598	04/12/2004	Edward Gilbert Shaw	03936-P0019A	3550
24126	7590	01/19/2006		
ST. ONGE STEWARD JOHNSTON & REENS, LLC 986 BEDFORD STREET STAMFORD, CT 06905-5619			EXAMINER KRISHNAMURTHY, RAMESH	
			ART UNIT	PAPER NUMBER
			3753	
DATE MAILED: 01/19/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Tulh

<b>Office Action Summary</b>	<b>Application No.</b> 10/822,598	<b>Applicant(s)</b> SHAW ET AL.	
	<b>Examiner</b> Ramesh Krishnamurthy	<b>Art Unit</b> 3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1 - 16, 18 - 21, 24 - 38 and 41 - 43 is/are pending in the application.
- 4a) Of the above claim(s) 1 - 9 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 32 - 38 is/are allowed.
- 6) ☒ Claim(s) 10 - 16, 18 - 21, 24 - 31 and 41 - 43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____  |

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This office action is responsive to amendment filed 11/01/2205.

**Claims 1 – 16, 18 – 21, 24 – 38 and 41 – 43 are pending.**

1. The disclosure is objected to because of the following informalities:

(a) the specification lacks proper section headings such as Introduction, Summary of Invention, Brief Description of Drawings, etc. See MPEP 608.01(a).

(b) Claim 10 recites at line 6, the limitation “controlled by alternating said signal, preferably rapidly,”. It is suggested that “, preferably” be deleted.

Appropriate correction is required.

2. Claims 1 – 9 remain withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention. Election was made **without** traverse in the reply filed on 19 May 2005.

**Claims 10 – 16, 18 – 21, 24 – 38 and 41 – 43 remain for further consideration.**

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 10 – 13, 15, 16, 18 – 21, 24 – 31 and 41 – 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lieber (US 3,921,666) in view of Foster et al. (US 6,637,462).

The embodiment in Fig. 10 of Lieber discloses the claimed invention with the exception of explicitly disclosing the pressure supply to the fluid switch i.e. pilot valve being drawn from the main valve.

Foster et al. discloses (Figs. 2 – 6, for example) that it is known in the art to use a pilot supply passage (128) providing pressure supply to the pilot valve drawn from the main valve supply since such is convenient and obviates the need for additional fluid source.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided in Lieber pressure supply to the fluid switch to be drawn from the main valve supply since such is convenient and obviates the need for additional fluid source, as evident from Foster et al.

6. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Lieber and Foster et al. as applied to claims 10 – 13, 15, 16, 18 – 21, 24 – 31 and 41 – 43 above, and further in view of Fujiwara et al. (US 4,617,952).

The combination of Lieber and Foster et al. as set forth above discloses the claimed invention with the exception of explicitly disclosing a Piezo electric actuator.

Fujiwara discloses a Piezo electric actuator for a three-way valve and further discloses that use of a Piezo electric actuator provides lower power consumption while providing the desired rapid switching (See Col. 1).

It would have been obvious to one ordinary skill in the art at the time the invention was made to have provided in the combination of Lieber and Foster et al. a Piezo electric actuator in lieu of the solenoid actuator for the purpose of obtaining lower power consumption while obtaining desired rapid switching as recognized by Fujiwara et al..

7. Claims 32 – 38 are allowed.

#### ***Response to Arguments***

8. Applicant's arguments filed 11/01/2005 have been fully considered but they are not persuasive. Applicant's argument is apparently derived from an assumed limitation that the supply of fluid at (63) in Fig. 10 of Lieber is of variable pressure and is thus incompatible with the stated pressure supply (72) to the pilot valve in Fig. 10. In response it is noted that Lieber does not disclose the supply at (63) to be variable, thereby rendering all arguments derived therefrom to be moot. Any use of the disclosed embodiment in fig. 10 for an anti-lock control system as asserted in the response at page 14, is merely applicant's interpretation of Lieber's disclosure and is not supported by any of the claims in Lieber.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP

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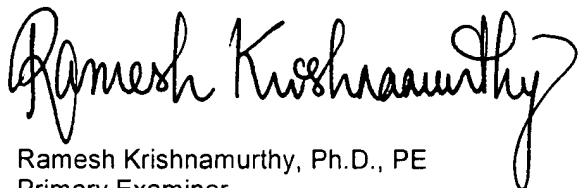
§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramesh Krishnamurthy whose telephone number is (571) 272 – 4914. The examiner can normally be reached on Monday - Friday from 10:00 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Keasel, can be reached on (571) 272 – 4929. The fax phone number for the organization where this application or proceeding is assigned is (571) 273 – 8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ramesh Krishnamurthy, Ph.D., PE  
Primary Examiner  
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